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STATEMENTS AND ILLUSTRATIONS

RELATING TO THE

*Sugar Question and Tariff; before the Committee of
Ways and Means.*

By HENRY A. BROWN,

Ex-Special Treasury Agent U. S.

WASHINGTON, January 29, 1880.

The clerk handed to the chairman a letter written to Mr. Henry A. Brown, informing him that he would be heard by the committee this morning.

Mr. DUNNELL. Have we not before us in print a statement of Mr. Brown?

Mr. BROWN. The committee has before it an old pamphlet written by me instead of a recent one published by me. I will hand to the committee copies of the other one. Some person has very shrewdly thought proper to place this one before the committee.

Mr. DUNNELL. Both books are yours, are they?

Mr. BROWN. Yes, sir.

Mr. GIBSON. Are you in the sugar business?

Mr. BROWN. I am not dealing in sugar. I am an investigator of customs business management, and particularly of those questions relating to sugar.

Mr. GIBSON. Under the authority of the Treasury Department?

Mr. BROWN. I was at one time special agent of that Department, but at present I am not acting officially.

Mr. GIBSON. Have you any personal connection with the Treasury Department?

Mr. BROWN. I have not.

Mr. GIBSON. Have you any connection with the sugar interest except as one of the consumers?

Mr. BROWN. Not, except as one of the consumers, and as an investigator of the question, with unusual facilities for that purpose.

Mr. GIBSON moved that Mr. Brown be allowed half an hour.

Mr. MILLS moved to amend by giving him one hour.

After the discussion, both the original motion and the amendment were withdrawn, and Mr. Brown proceeded to address the committee, reading the following paper:

However much this honorable committee, Congress, and the people may have been saturated with solutions of the sugar question, careful analysis of such solutions reveal the fact that individual trade interests, too shrewdly put or awkwardly presented, and official misrepresentations have strangely subverted facts; judging from the facts in my knowledge, such presentations have unwisely ignored

the interests of consumers, and misled Congress in its measurement of this stupendous question.

The entire consumption of foreign and domestic raw sugar in this country now exceeds 1,900,000,000 pounds per annum, or about 38 pounds *per capita*; of which in the fiscal year ending with June, 1879, 1,681,307,412 pounds were foreign sugars, to wit, 1,598,461,986 pounds dry dutiable sugar; 41,152,357 pounds melada or wet sugar, and 41,693,069 pounds *free* sugar from Hawaii; this vast volume of raw sugar comprises more than one-seventh of the officially reported and estimated annual raw sugar product of the world, which in 1878 was 5,335,000 tons, and in 1879 approximated 5,500,000 tons, or 12,320,000,000 pounds; although we number less than one-thirtieth of the population of the world, we consume more than one-seventh of its sugar product. England alone exceeds us in this regard, annually consuming about 62 pounds per capita, or more than 2,100,000,000 pounds; about one-sixth of the world's raw sugar product.

Dutiable sugar and melada constituted 24.03 per cent. of all dutiable merchandise entered into consumption in the fiscal years 1876-'77-'78, and yielded 27.93 per cent. of the duty received in those years, while dutiable dry and wet sugars and molasses constituted 26.52 per cent. of all dutiable merchandise entered into consumption in the years named, and yielded an average of no less than 29.41 per cent. of the total revenue from customs; the yield being in 1870 30.61 per cent., had the full duty on the higher grades of dry sugars being collected during 1876-'77-'78, the revenue, under the present tariff from sugar, melada and molasses would have exceeded 35 per cent of the entire revenue from customs in those years.

In the fiscal year ending June 30, 1879, the total value of dutiable merchandise entered into consumption was \$296,742,215; total value of sugar and melada \$67,153,667, or 22.63 per cent. of all dutiable merchandise. The total amount of duty received in the same year was \$133,159,025, of which \$38,065,803, or 28.58 per cent. was received from sugar and melada; if molasses be added, the per cent. of duty received from sugar and molasses in 1879 is 30.24.

I am satisfied that had there been no foreign centrifugal machines in motion to increase frauds, with reasonable official diligence, at least 37 per cent. of the customs revenue would have been derived from sugars and molasses; that is, we should have received \$50,000,000 in the fiscal year 1879 from sugar and molasses, instead of \$40,275,402.

Uniform duty on sugar up to No. 13 would legalize and perpetuate this system of enormous swindles, while the consequent exclusion of low grades would further outrage consumers and tax-payers. For instance:

We buy foreign raw sugars testing, say, 80 in the producing country, at, say, 3 cents a pound; 100 pounds cost \$3; there being only 80 pounds of crystallizable sugar, the cost would be $3\frac{2}{3}$ cents a pound; from such sugar, an outturn of all grades of refined sugar

can be produced for consumers at correspondingly low rates, while the cost of labor and materials employed in refining such sugar is disbursed in this country. On the other hand, we buy centrifugals in Cuba or Demerara testing say, 97, at, say, 6 cents a pound; 100 pounds cost \$6; the 97 pounds of crystallizable sugar therein would cost 6.2 cents a pound; from this sugar, refiners can only obtain the highest proportionate outturn of refined product in pure sugar, &c. In order to supply the mass of consumers, when centrifugals alone, or even with a small per cent. of lower grades, are used for refining, the outturn must be stretched with glucose, starch, &c.; otherwise, consumers must buy the highest priced refined sugars or none.

The difference between \$3.75 for 100 pounds of raw sugar of low-grade and \$6.20 for 100 pounds centrifugals, represents what under a uniform tariff to No. 13 would be the increased cost of sugar to consumers and the industrial loss to this country, namely, \$2.45 for each 100 pounds of raw sugar imported for consumption; besides, our own refiners can produce centrifugals of equal grade from low-grade sugars for far less money; neither would the government gain a single cent of revenue under a uniform duty to No. 13 over that obtained under the present classification tariff; on the contrary, we should simply be admitting centrifugals at the lowest rate of duty, to the exclusion, or nearly so, of all lower grades; by which process we reduce importations, because we do not require so many pounds of centrifugals as we do of lower grades of raw sugar to supply consumers with the grades of refined sugars they demand: hence importations would be curtailed under a uniform duty to No. 13.

Sugars for refining, when honestly entered, are not above No. 13; therefore the utmost possible evasion of duty through false sampling such sugars under the present tariff would be the difference between $2\frac{3}{8}$ cents a pound and $21\frac{3}{8}$ cents a pound, or $62\frac{1}{2}$ cents per 100 pounds, whereas should the weigher trifle with the scales so as to make a shortage of one pound in every hundred, the government must lose \$2.33, the average duty collected in 1879 per 100 pounds; the weigher under a uniform tariff to No. 13 could defraud more than the sampler could under the present tariff, while the profit to the importer would also be greater in proportion.

The inducement to evade duty on low grades of imported sugars is of necessity confined to weighing, it being next to impossible to hide or lower their intrinsic color either to advantage or profit; whereas the inducements to evade duty on high grades of raw sugar are very great, when sugar of No. 13 or 16 Dutch standard, actual foreign value, is entered as No. 7 Dutch standard in color, which has repeatedly been done with centrifugal sugars, an illicit gain of \$6,250 accrues to revenue evasionists on a cargo of 1,000,000 pounds. No. 7 Dutch standard apparent in color has stood for No. 10, No. 13, and even No. 16 Dutch standard, actual in cost, in the principal transactions of the past few years in the entry of dutiable sugars of high foreign value, falsely toned in color to evade duty; to burden low-grade raw sugars, which never evade duty, with a

high-grade tax or uniform duty to No. 13 Dutch standard, in order to legalize the present illicit practice of entering high grade centrifugals at low-grade rates of duty would outrage consumers.

The average foreign cost of raw sugar per pound and the average duty received per pound was, in 1876: cost 4.08 cents, duty 2.41 cents; in 1877, cost 4.93 cents, duty 2.36 cents; in 1878, cost 5.08 cents, duty 2.34; in 1879, cost 4.12 cents, duty 2.33 cents; showing a constantly decreasing rate of duty with increasing imports of high grades of centrifugal sugars.

Apparently all raw sugars imported were of an average grade of No. 7½ Dutch standard, which is, of course, simply humbug; the average cost of No. 7½ Dutch Standard raw sugar in producing countries was about 2¼ cents a pound for the fiscal year ending June 30, 1879; neither did the government retain 2.33 cents a pound duty in 1879. Melada, or wet sugar, is used for refining purposes, and, with free sugars from Hawaii, must be added to dutiable dry sugars; therefore, the total amount of dry and wet sugars entered into consumption in 1879 was 1,681,307,412 pounds, value \$70,266,105; duty received from sugars and melada, \$38,065,803, less \$3,365,297, refunded on drawback on 116,862,583 pounds refined sugar exported in 1879; net duty received, \$34,700,506, or 2.06 cents per pound.

Instead of bettering this condition, a uniform duty to No. 13 would simply enable refiners to export more refined sugars of high grade, made from high-grade centrifugals entered below No. 13 at the lowest rate of duty, and obtain 3.18 cents per pound therefor in drawback; while fifty millions of American consumers are to be deprived of low-grade sugars or the outturn therefrom to suit such speculations.

The classification of imported sugars for duty tell the true story of gigantic frauds upon the revenue; for instance, in 1878 sugars sampled and classed as not above No. 7 Dutch standard actually cost 4.82 cents a pound in the producing country, or the average foreign cost of sugar above No. 10 Dutch standard in intrinsic color.

Sugars sampled and classed as above 7, not above 10, Dutch standard in color cost 5.37 cents a pound in producing countries, or the average foreign cost of sugars above No. 13 Dutch standard in intrinsic color; sugars sampled and classed as above 10, not above 13, Dutch standard, cost 5.68 cents a pound in producing countries, or the average foreign cost of sugars above No. 13 Dutch standard in intrinsic color; while sugars sampled and classed as above 13, not above 16, Dutch standard in color cost only 5.01 cents per pound in producing countries.

Will anybody having knowledge or common sense pretend that raw sugar No. 7 and below in natural color actually cost on the average 4.82 cents per pound in producing countries during 1878, or that 7 to 10 sugars cost 5.37 cents, or that 10 to 13 sugars cost 5.68 cents per pound, while sugars above 13, not above 16, Dutch standard cost only 5 cents per pound in producing countries? The classifications below No. 16 are plainly false and fraudulent.

In 1879 the apparent ad valorem rate of duty received was, on

sugar not above No. 7, 53.2 per cent.; on sugar above 7, not above 10, 60.8 per cent.; above 10, not above 13, 60.65 per cent.; above 13, not above 16, 64.41 per cent.; but the actual ad valorem rate received is another matter, inasmuch as the classifications for duty are largely crooked; for instance, 890,801,182 pounds of sugar are classed not above No. 7, and valued at \$36,627,476; a little more than 4 cents per pound in the country of production; whereas the average cost of such sugars in 1879 in producing countries was about $2\frac{3}{4}$ cents per pound; about 20 per cent. of sugars not above No. 7 of natural color are imported, on the average, according to facts; therefore only 319,692,396 pounds of sugars not above No. 7 entered into consumption in 1879, amounting, at $2\frac{3}{4}$ cents per pound, to \$8,791,540; the duty thereon at $2\frac{3}{8}$ cents per pound would be \$6,993,271, or 79.54 per cent. ad valorem, as compared with 63.41, the true ad valorem rate on the same grades in 1878, falsely represented for duty purposes, as 45.33 per cent. Even should it be claimed that the average cost of No. 7 and below sugars has been 3 cents per pound in 1879 in producing countries, which is not the fact, the ad valorem rate for No. 7 and below sugars in 1879 would still be 72.91 per cent. instead of 53.2 per cent. The pretense that the present tariff favors low grades is a miserable subterfuge, to deprive consumers of their rights and to legalize the present system of frauds by a uniform sugar tariff to No. 13.

Hawaiian sugars enter duty free, and of course, there being no profit or advantage in false entries and no duties to evade, the classification of free sugars tells the true story of grades to wit:

Hawaiian sugars entered into consumption in 1879 were as follows:

	Quantity.	Value.	Cost per lb.
	<i>Pounds.</i>	<i>Dollars.</i>	<i>Cents.</i>
Not above No. 7 (p. 10, H. C.), none...	—	—	—
Above 7, not above 10.....	8,174,146	501,850	6.13
Above 10, not above 13.....	16,615,686	1,099,164	6.61
Above 13, not above 16.....	15,670,564	1,118,117	7.13
Above 16, not above 20.....	1,232,673	92,061	7.46

Here we have not only an honest classification of sugars, but an illustration of the beauties of a uniform tariff to No. 13 on dutiable sugars, encouraging foreign industries and crushing our own, thus compelling American consumers to pay the taxes imposed on foreign sugar at every turn, while depriving them of the cheaper grades of refined sugars, which can only be manufactured in this country in sufficient quantities to meet consumers' demands, by admitting all grades of raw sugars at equitable rates of duty, conforming to their intrinsic color and value, under a classification tariff. It should be remarked and remembered that Hawaii no longer sends us raw sugars No. 7 and below, because having no duty to hinder, she raises the grade of her sugars for this market, retains the industry, and compels the American consumers to pay her the full American market value of the sugar when landed in California. Thus consumers, who are tax-payers, lose the duty and pay for the foreign industry of

semi-refining, yet cannot obtain the low grades of raw material required for refining purposes from these Hawaiians, who fatten on our credulity.

Our trade with Hawaii under the reciprocity treaty from September 1, 1876, to June 30, 1878, and loss of duty on Hawaiian sugars, estimated at 62.50 per cent. of their value, was as follows:

Imports, consumed.....	\$4,799,508
Exports.....	3,080,632
Sugar imports.....	4,382,900
Loss sugar duty.....	2,739,313

In 1879, fiscal year, the account with Hawaii stands as follows, including loss of duty on sugar:

Imports, consumed.....	\$3,112,438
Exports.....	2,288,178
Sugar imports.....	2,811,192
Loss sugar duty.....	1,756,995

Worse than this, the introduction of sugar duty free from Hawaii opens a channel for defrauding the revenue by landing sugars at those islands and shipping them thence to the United States to enter duty free as Hawaiian sugars.

A uniform duty on sugars to No. 13 Dutch Standard would virtually accomplish similar results to these Hawaiian frolics in transferring American industries to foreign hands and shutting out low-grade sugars, while the almost exclusive importation of high-grade centrifugals, clayed, and semi-refined sugars would enormously curtail the number of pounds of foreign raw-sugar material required for consumption, and reduce the revenue accordingly; not only this, but the application of this Hawaiian, centrifugal, clayed, semi-refined, uniform duty principle to the entire volume of foreign sugars now required for consumption would entail an industrial loss upon the people of this country amounting to fully $2\frac{1}{2}$ cents per pound on the consumption, or more than \$40,000,000 annually, as already illustrated.

Neither should the sugar productive industries of this country be curtailed or crushed or be made subservient to foreign and domestic speculations in American industries and the necessities and rights of American consumers, as proposed under a uniform tariff on raw sugars not above No. 13 Dutch Standard in color. It is a dangerous mistake for *Louisiana* to endeavor to shut out low grades and encourage the importation of centrifugals and high grades of foreign raw sugar, by admitting foreign semi-refined sugars at the lowest rate of duty; and the beet sugar industry now struggling into life in this country would be strangled in its infancy under the existing system of thuggism in trade, which system would be legalized under a uniform tariff on all sugars not above No. 13 Dutch Standard in color.

A cursory examination and comparison of Louisiana sugars with foreign low-grade sugars will show conclusively that Louisiana raw sugars have nothing to fear from foreign low grades of raw sugar under the present classification tariff, as the existing duty on low-grade sugars, added to freight, charges, and commissions, more

than doubles their original cost in producing countries, thus enabling Louisiana to obtain for her lowest grades of raw sugar prices which remunerate her producers in a princely manner, compared with the average returns from other agricultural pursuits in this country. Louisiana, therefore, need not fear foreign low-grade sugars.

Louisiana as a cane sugar producing State has always demanded exorbitant protection for her sugars; the history of all well ordered nations teaches that tariff protection should be extended only to home products which can readily be produced in excess, and the surplus thereof sold abroad with advantage and profit to the producing country; if cane sugar cannot be produced in this country in sufficient quantity to supply home consumption within a reasonable time, it is folly and injustice to consumers to levy the present high duties on sugar for the protection of Louisiana, Florida, and Texas.

The capacity of Louisiana for producing cane sugar has been fairly measured by past and present experience in that State; from a yield of 30,000,000 of pounds in the crop year 1835-'36, a fluctuating progress in the annual production of cane sugar in Louisiana brought the yield in the crop year 1853-'54 up to 495,200,000 pounds, after which it fell to 81,400,000 pounds in 1856-'57, rose to 414,800,000 pounds in the crop year 1858-'59, fell to 225,100,000 pounds in 1859-'60, rose to 263,300,000 pounds in 1860-'61, and under fortuitous circumstances, including favorable weather, in the crop year 1861-'62, Louisiana produced 528,300,000 pounds of cane sugar; this exceptional yield has not been approximated since in that State, notwithstanding improved machinery, agricultural advancement, and exorbitant protection.

From 1862-'63 to 1867-'68, inclusive, six crop years, the total yield from Louisiana sugar cane was 295,500,000 pounds of sugar; less than five per cent. of the consumption of sugar in the country in those years. If war was the sole cause of this falling off, how has Cuba managed to maintain an annual average in sugar crops under wars, devastations, and numerous calamities? The annual yield of cane sugar from 1835 to 1879 is presented elsewhere herein, where it will be seen that during the years 1868-'69 to 1876-'77, inclusive, nine crop years, Louisiana produced only 1,233,814,000 pounds of cane sugar; an average of 137,090,444 pounds per annum, or an aggregate product of less than the average annual consumption of imported sugars in this country, including Hawaiian sugars, during the same years; the total consumption of foreign sugar in this country being during 1869 to 1877, inclusive, 12,217,854,976 pounds, or an average of 1,357,539,442 pounds per annum.

In other words, during the nine crop years above named, which correspond with our fiscal years, Louisiana has produced 1,233,814,000 pounds of sugar, the value of which at 8 cents per pound is \$98,705,120; while during fiscal years ending in 1877, 12,217,854,976 pounds of foreign sugar have been consumed in this country, and consumers have been taxed \$288,260,765 of duty collected thereon; the Secre-

tary of the Treasury and Louisiana coolly urge the continuance of this exorbitant war tax on sugar for revenue, and to protect Louisiana planters, who produce only a tenth part of our consumption of sugar, and that of a kind which now commands its own price and market without protection, as in case of maple sugar.

Judging from results before and since the war, the annual reports of Louisiana planters, and the local disadvantages, such as early cold and frost, against which there is no remedy, consequent poor seed and difficulties of propagating the cane from cuttings and ratoons, the average annual yield is not likely to exceed 250,000,000 pounds, until plantations in general are much better worked and properly manured, and more land has been planted with sugar-cane.

There are, however, good reasons for the belief that, with these requirements fulfilled, the annual capacity of Louisiana for the production of cane sugar would be equal to 500,000,000 pounds, and that an average annual yield in Louisiana of fully 350,000,000 pounds of cane sugar could then be relied on; and it is reasonable to suppose that under proper cultivation in Louisiana and such other States as are suited to the growth and maturing sugar cane, a large portion of the sugar required for our own consumption could be produced in this country without the aid of special tariff protection.

In many parishes in Louisiana, sugar plantations readily produce more than a ton of sugar to the acre, besides molasses; in the crop year 1877-'78 there are reported products per acre from Louisiana sugar plantations as follows: 3,000 pounds, 2,860 pounds, 2,855 pounds, 2,700 pounds, 2,634 pounds, 2,650 pounds, 2,500 pounds, 2,460 pounds, 2,400 pounds, 2,320 pounds, 2,300 pounds, 2,250 pounds, 2,240 pounds, and 33 plantations reported a yield of 2,200 pounds and upward of sugar to the acre, besides molasses. M. Schlatre, an authority among Louisiana planters, has furnished detailed statements of the cost of producing cane sugar in Louisiana on the basis of 2,200 pounds of sugar per acre, which summarizes as follows for the crop year 1877-'78:

Total cost of cane, planting, and cultivating 50 acres	\$2,413 50
Expenses to convert the cane into 100 hogsheads sugar	3,000 00
Cost per acre when producing 2 hogsheads sugar	108 27
Yield of 50 acres of cane in sugar and molasses; 100 hogsheads sugar (1,100 pounds to the hogshead,) at 8 cents per pound	8,800 00
150 hogsheads molasses, at \$18 per hogshead	2,700 00
Cistern bottoms	300 00
Total value of product	11,800 00
Total cost of production	5,413 50
Net profit from 50 acres	6,386 50
Cost per acre, \$108.27; yield per acre, \$236; net profit per acre	127 73
The above estimated profit per acre is princely, when compared	

with the average annual agricultural yield in net profit of less than \$30 per cultivated acre; but it would be largely increased under a thorough system of cultivation, manuring, and manufacture, whereby more and better cane would be produced, and more juice be abstracted therefrom than is now the case. At least 3,000 pounds of sugar per acre should be obtained in good years; indeed it is conceded by Louisiana planters that the cultivation of sugar-cane in that State is profitable throughout under economical and experienced management, notwithstanding intervening poor crops caused by climatic drawbacks; it is also a fact that Louisiana raw sugars command their own market of consumption, at prices which compete only with refined sugars, and do not really come into competition with foreign raw sugars.

Louisiana producers readily obtain an average price above 7 cents per pound for their sugars, which, although defecated or made bright in color by sulphur or muriate of tin, previously contain less crystallizable sugar than foreign refining muscovadoes and molasses sugars, while the foreign producers of these sugars obtain an average of about $2\frac{1}{2}$ cents per pound only. Analyses of numerous cargoes of Louisiana sugars resulted as follows: lowest cargo test, crystals 81.10; invert sugar, 8.41; water, 7.39; ash, 1.32; other impurities, 1.78; highest cargo test, crystals, 90.30; invert sugar, 1.27; water, 4.83; ash, 0.82; other impurities, 2.78; average cargo tests, crystals, 84.75; invert sugar, 5.70; water, 6.12; ash, 1.15; other impurities, 2.28; average crystallizable strength, avoiding extremes, Louisiana sugars, 84.75; foreign muscovadoes, average 88.89, as shown hereinafter. In short, Louisiana needs no protection against foreign raw sugars until she produces raw sugars for refining purposes and not for immediate consumption, which she has no intention of doing while her producers can sell raw sugars brightened in color for immediate consumption, at prices ranging from 7 to 11 cents per pound, as in 1877-'78-'79.

Beet sugar can unquestionably be produced in the United States in vast quantities; there is abundant evidence that the sugar-beet can be grown at a good profit in many sections of this country, and be made to yield, under a proper cultivation, from 9 to 12 per cent. of its weight in crystallizable sugar and sirup; the pulp residuum remains highly nutritious for cattle, and the green beet tops are excellent for feeding to stock.

From 20 to 25 tons of sugar-beets can be raised to the acre on ordinary farming-land with moderate manuring, at about the cost of raising potatoes; where proper farming-tools are used for planting beet-seed and hoeing the plants, there is no crop of roots more easily cultivated than beets; the tap-root of the beet finds moisture enough and flourishes in sandy loam and moderately dry farming land; when suitable land produces less than 20 tons of sugar-beets to the acre, the fault or failure will be found, as in the case of sugar-cane, in the farming or want of manure; sugar-beet culture has great advantage over sugar-cane culture in this country, as the latter is subject to casualties of climate almost unknown to the former.

Farmers in Maine are now (1879) paid \$6 per ton of 2,240 pounds for unwashed sugar-beets delivered at the factory in Portland, or \$5 per ton delivered at railroad stations centering at Portland; the average yield in France is about 23 tons of beets to the acre, and from 11 to 14 per cent. of sugar and sirup therefrom, both of which outturns can be equaled or excelled in this country; when requisite experience in cultivating the sugar-beet has been acquired, we can produce two tons of beet sugar per acre, and, all things considered, farmers will be better paid from sugar-beet crops at \$5 per ton unwashed, delivered at central stations, than from any other crops they generally handle.

Continental Europe has set us an example in beet-sugar production, and presents a profitable and progressive record of energy and enterprise in this regard, producing, in 1878, 1,465,000 tons of beet sugar, with a prospective crop, in 1879, of at least 1,500,000 tons; as beet sugar must be refined before it is suitable for consumption, the industry of refining in this country must be greatly benefited by the increased production of beet sugar; the beet sugar industry has taken shape in Maine, Massachusetts, Delaware, and California, and is in embryotic form elsewhere in this country; it already bids fair to become a source of national wealth; a moderate duty on foreign sugar will stimulate the production of cane and beet sugar in this country, *but the broad basis of dependence with both of these industries is their capacity of production in competition with foreign producers on equal terms.*

On the contrary, when we come to the refined outturn from imported sugars, Louisiana must of necessity compete therewith, and it is very evident that the higher the grades of imported raw sugars, the more difficult it becomes for domestic sugars to compete with the outturn therefrom in quality and prices. Her remedy lies in refining her own sugars. Louisiana, therefore, sounds the tocsin of her own sugar productive undoing when she advocates a uniform duty on all sugars not above No. 13 in color. A uniform duty to No. 16 would be even worse for her; it is further evident that protected by a uniform duty to No. 13, Cuba and other countries would soon flood us with muscovadoes of a grade suitable for immediate consumption, at prices with which Louisiana muscovadoes could not compete profitably in this market.

The difficulties in the way of adopting an actual ad valorem sugar tariff with any certainty of collecting the full duty from sugar and other merchandise, are almost insurmountable, owing to fluctuations in prices and false invoicing, &c.

The Dutch standard is perfectly competent to determine the intrinsic colors of all raw sugars of natural color, *when such sugars are reduced to the consistency of Dutch standard samples in grain*; as regards low grades of raw sugar, the importation of which it is sought to prohibit by adopting a uniform duty to No. 13, evasion of duty is impracticable under the Dutch standard alone, except through official fraud in sampling or weighing. Crush such sugars thoroughly, still their color remains the same. Neither analysis nor polarization are required to determine the intrinsic color and quality of

sugars between melada and sugars not above No. 10 Dutch standard in natural color. Muscovadoes and molasses sugars, made by natural draining alone, although from No. 10 to 14 in color, can always be accurately determined, and classed for duty by the use of the Dutch standard only.

Discolorations to evade duty begin with the higher grades, namely, with Centrifugals, Javas, and vacuum pan sugars and such foreign sugars as would naturally be about No. 11 to No. 16 Dutch standard in color when honestly made, and which almost invariably test above 92 and to 98 in crystallizable strength in 100 parts of raw sugar material.

Natural discoloration of raw sugar to evade duty, especially as regards centrifugals, consists simply in the retention of molasses and impurities, or in adding an excess of lime, sulphuric acid, burnt sirup or caramel to the juice in defecators, in the pan, or in the mass in the centrifugal machine. Vacuum-pan sugars and clayed sugars may be similarly discolored by injection and leaching. Lowering of color may be carried to any desirable extent in raw sugar, and still maintain therein 93 to 98 per cent. of crystallizable sugar, varying in color and strength in crystals at the option of manipulators.

That the discoloration abuse is not confined to this country and practiced for the evasion of duty alone, may be seen in the following circular emanating from Holland—the birthplace of the Dutch standard—wherein analysis is adopted as an adjunct to the color standard, which cannot be entirely superseded so long as color remains necessarily a principal factor in fixing the value of sugar among merchants for trade purposes. The circular is as follows:

ROSENDALL, September 26, 1879.

To the President and Members of the Central Committee of the Sugar Manufacturers of France:

GENTLEMEN: We have the honor to inform you that two days ago the Minister of Finance has presented a law to prevent artificial coloration of sugars and the use of artificial mixtures intended to deceive as to the true value of sugars.

Their value will be determined by chemical analysis.

Please, gentlemen, accept the assurance of our distinguished consideration.

B. JAEGER,
President.

B. REIGER, *Secretary.*

It will be observed that only artificial mixtures are referred to in the Hollandic circular. Nevertheless, natural discolorations will quite as readily be detected and disposed of by analysis, such being practiced in manufacturing Java sugars, as well as centrifugals and other raw sugars of high crystallizable strength and value. Discoloration of foreign sugars in the country of production is, and has long been, practiced to lower the grade and quality of sugar in appearance, for the purpose of evading duty, and to raise the grade and quality of both raw and refined sugars, to deceive customers and obtain higher prices in the market than the same sugars of natural colors are worth intrinsically. Java clayed sugars are high priced, and mostly above 92 in crystallizable strength. Like centrifugals and vacuum-pan sugars, they have long been manipulated in

color to evade duty—manipulations which Treasury officials, who have arbitrarily superseded collectors and appraisers, have thus far failed to cope with understandingly, much less successfully.

The era of free trade in sugar has not been reached, and if foreign sugars were placed on the free list, producing countries would levy an offset export duty thereon, thus maintaining the cost as before, or increasing it. On the other hand, uniform duty would discriminate against the bulk of imported sugars which we must mainly depend upon for the production of refined sugar suitable to the imperative demands of eight-tenths of the people, and favor centrifugals and high-grade sugars immensely, without benefit to the great mass of consumers or the revenue, and would check consumption and home production, as shown elsewhere. Classification according to quality, for the purpose of levying duty on sugar, remains, therefore, an inevitable sequence of wise legislation.

In order to counteract discolorations practiced to evade duty under a color standard alone, it becomes necessary to combine analysis with the color standard in order to determine accurately the quality and consequent foreign value of imported sugars, and to establish an equitable test line of crystallizable strength as a basis for levying duty. Naturally and equitably the line would fall between 91 and 93, and should be established at 92 for cargo samples. Drying samples and raising the test line above 92, discriminates in favor of centrifugals, clayed and vacuum-pan sugars, as will be hereinafter seen.

During his investigations the writer has secured numerous cargo samples of various classes of imported sugars, including many containing artificial and natural discolorants, and caused them to be analyzed. He has also obtained the results of official and trade analyses of several hundred cargoes of imported sugars that have entered into consumption during 1875-'6-'7-'8-'9. The results corroborate and establish his former premises published in his "Revised Analyses of the Sugar Question," and repeated herein. For example, the imported sugars named below, when of natural color and condition, are found by analysis to contain crystallizable sugar approximately as follows. Per cent. of crystallizable sugar in 100 parts of material. Extreme exceptions have been omitted:

Melado	63 to 76
Mexican sugar below 7 D. S.	70 to 76
China sugar 7 to 10 D. S.	79 to 90
Dullooah sugar, 7 to 10 D. S.	75 to 84
Gurpatta sugar, n. a., 7 D. S.	77 to 86
Iloilo sugar, 7 to 10 D. S.	81 to 89
Bahia sugar, n. a., 7 D. S.	71 to 73
Guadeloupe sugar, 7 to 10 D. S.	80 to 87
Peruvian concrete, n. a., 7 D. S.	76 to 83
Cuba clayed sugar, 7 to 12 D. S.	87 to 96
Molasses sugar, 7 to 12 D. S.	86 to 91
Martinique sugar, 7 to 10 D. S.	82 to 89
Beet sugar above 7 to 14 D. S.	93 to 97
Java clayed sugar above 7 to 14 D. S.	93 to 97
Demerara sugar, n. a., 7 D. S.	83 to 88
Centrifugal sugar, 7 D. S. (low)	91 to 92
Chuyang sugar, n. a., 7 D. S.	83 to 89
Taal sugar below 7 D. S.	71 to 73

Penang sugar, n. a., 7 D. S.	69 to 75
Formosa sugar, n. a., 7 D. S.	73 to 80
Cebu sugar, n. a., 7 D. S.	74 to 85
Manila sugar below 7 D. S.	76 to 82
Macio sugar, n. a., 7 D. S.	86 to 89
Egyptian sugar, 7 to 10 D. S.	80 to 90
Barbadoes sugar, 7 to 10 D. S.	86 to 89
Pernambuco sugar, 7 to 10 D. S.	84 to 89
Muscovado sugar, 10 to 14 D. S.	85 to 91
Porto Rico sugar, 7 to 12 D. S.	84 to 91
Beet sugar, n. a. 7 D. S.	90 to 92
Java clayed sugar, n. a., 7 D. S.	90 to 92
Hawaiian sugar, 7 to 10 D. S.	89 to 91
Demerara sugar, 9 to 12 D. S.	90 to 96
Centrifugal sugar above 7 to 14 D. S.	93 to 97
Surinam sugar, n. a., 7 D. S.	81 to 86

It may at once be seen in the above schedule, which embraces more than 300 cargo tests, and includes crop variations, that 92 degrees of crystallizable strength in 100 parts of properly-sampled raw sugar provides a natural and equitable dividing line for counteracting both artificial and natural colorants, and equitably determining the natural color, quality, and value of discolored raw sugars, in order to levy correct duty thereon. Raw sugars naturally testing above 92 in equitable cargo samples run 93 to 96 as a rule, with comparatively few exceptions, and should be covered in a single classification when not above 13 Dutch standard in natural color, which, in the case of large-grain centrifugals, *can only be determined by crushing the grain.*

Samples are before me of a cargo of large-grained centrifugal sugar, which appears to be not above 10 Dutch standard in color, and the cargo was so entered and liquidated—the samples test of sugar, 97; imp., 2.5; water, 0.5. On being crushed, the sugar is No. 20 Dutch standard in color, and excellent for eating, the crystals having been outwardly darkened with sugar impurities, doubtless to evade duty. Of course, such and similar sugars should pay duty on intrinsic color, as being above 92 and above 16 Dutch standard—the true intent and purpose of the Dutch standard being to measure the intrinsic color of sugars, while by analysis we measure the intrinsic quality of sugar.

On the other hand, refining muscovado sugars, although mostly 10 Dutch standard or above in natural color, acquired simply by draining, contain less than 92 per cent. of crystallizable sugar. Analyses of 47 different cargoes of muscovadoes are before me, which tested as follows in crystallizable sugar: Lowest test, 84.80; highest test, 92; general range of cargo tests, 85 to 91; average of cargo tests, 88.89. Nevertheless, the claim that light-colored muscovadoes are virtually prohibited by the present tariff proves mistaken, inasmuch as color being the prime factor of value in raw grocery sugars (muscovadoes made light and fit for eating by defecation in addition to natural draining), it is evident that muscovado sugars imported suitable for consumption will, if consumers want them, bring value accordingly, as in the case of Louisiana sugars, and should pay a higher rate of duty than undefecated muscovadoes suited only to refining purposes.

Refining sugars above No. 7 Dutch standard in natural color are

intrinsically more valuable proportionally in refined outturn than refining sugars No. 7 Dutch standard or below in natural color, and should therefore pay a higher rate of duty. Refining sugars above No. 10 Dutch standard in natural color also produce a more valuable proportionate outturn in refined product than can be obtained from sugars above No. 7 and not above No. 10 Dutch standard in natural color. Consequently, muscovadoes should pay a higher rate of duty. Lower grades of refining sugar are most extensively imported and used for refining, simply on account of the demands of consumers for the cheaper grades of refined sugars. That such grades cannot, however, be obtained, in the relative proportion required for consumption, from high-grade light-colored raw sugars alone, is an absolute fact. (See schedules of cargo analyses herein, showing the comparative crystallizable strength of imported refining sugars of natural color; see also page 28, section III, R. A. S. Q., showing comparative cost of refining.)

Consumers demand the cheaper grades of refined sugars for consumption in preference to imported muscovado sugars that have been defecated or semi-refined in the country of production. Muscovado sugars, in general, are unfit to eat, unless defecated by precipitants. Natural draining of concentrated raw sugar or melado does not sufficiently eliminate impurities therefrom for purposes of consumption. When thus freed from molasses and impurities, and made brighter, muscovadoes test higher, and are more valuable than drained or partially-drained sugars, and should pay higher duty accordingly when imported suitable for consumption.

Nevertheless, refiners can, from the lower grade of refining sugars, including melado, produce pure refined sugars golden-hued to white in color, for consumption, with which raw foreign muscovadoes can never compete successfully in prices, neither under an equitable tariff classification, nor with the duty on all sugars abolished. Foreign muscovadoes therefore now naturally seek tariff protection to enable them to supersede American refined sugars for immediate consumption, and, for a pretense, malign the present tariff classifications and demand tariff modifications discriminative against the numerous low grades of refining sugars from which the bulk of American refined sugars now required by the masses for consumption are produced. As with centrifugals, this is also a question of Foreign versus American interests and industries.

Efforts of the Treasury officials to increase the revenue from imported sugars have culminated in evaporating moisture from cargo samples of raw sugars, and raising the test line to suit dry samples when levying duty, under the pretense that "the percentages of sugar in the dry substance are the practical equivalents of those (the percentages) specified of sugars as imported before the water is evaporated." In the matter of raw sugar, the merchant buys and pays for the sugar composite, impurities, moisture, and all. The government weighs the cargo on arrival, charges duty on every pound of moisture, and then coolly fixes the rate of duty at pleasure, by levying on samples wherein the texture of the cargo of imported sugar has been changed by forced evaporation.

Whatever the intent, this method of increasing the revenue from sugar discriminates against low grades and in favor of centrifugals, Javas, &c., as will be seen in the following schedule of different kinds of imported raw sugars, which, avoiding extremes, exhibits the range of percentages of natural moisture purchased and contained in 100 parts of sugar texture, as sampled and analyzed on arrival of the cargoes:

Melado contains 10 to 15 parts water.

Iloilo sugars, 3 to 6 water.

Molasses sugars, 4 to 6 water.

Formosa sugars, 6 to 8 water.

Porto Rico sugars, 4 to 7 water.

Pernambuco sugars, 3 to 6 water.

Egyptian sugars, 3 to 6 water.

Cuba clayed, 1 to $3\frac{1}{2}$ water.

Beet sugars, $1\frac{1}{2}$ to 4 water.

Manila sugars, 3 to 7 water.

Muscovado sugars, 4 to 7 water.

China sugars, 3 to $5\frac{1}{2}$ water.

Chuyang sugars, 3 to 5 water.

Dullooh sugars, 3 to $5\frac{1}{2}$ water.

Peruvian concrete, 6 to 8 water.

Guadeloupe sugars, 4 to 8 water.

Javas (except low,) $\frac{1}{2}$ to 2 water.

Centrifugal sugars $\frac{1}{2}$ to 2 water.

Forced evaporation of moisture, which must be restored in refining, would greatly reduce the weight of sugar composite imported, every pound of which is charged with duty, and force the crystallizable strength of most low grade-sugars above 90 and 94, by changing their natural texture. Why not also eliminate impurities, including invert sugars from the lower-grade sugars, and force them up to 99 at once for levying duty? The masterly moisture evaporation or dried sample process produces results like the following:

A cargo of centrifugal sugar enters and tests, crystals, 95.5; impurities, 3.5; water, 1. Evaporate the water, and 99 parts become 100 parts, and test, crystals, 96.5; impurities, 3.5. A cargo of centrifugal or Java sugar is imported, and tests, crystals, 94; impurities, 4; water, 2. Dry out the water, and 98 parts become 100 parts, which test, crystals, 96; impurities, 4—all right for centrifugals. On the other hand, a cargo of molasses sugars enters that tests, crystals, 89; impurities, 5.60; water, 5.40. Dry the samples, and 94.60 parts become 100 parts, that test, crystals, 94.40; impurities, 5.60. A cargo of Pernambuco sugar is imported, which tests, crystals, 86.10; impurities, 7.78; water, 6.12. Dry the samples, and 93.88 parts become 100, and test, crystals, 92.22; impurities, 7.78. A cargo of Porto Rico sugar enters that tests, crystals, 88.40; impurities, 4.85; water, 6.75. Dry the samples, and 93.25 parts become 100 parts, and test, crystals, 95.15; impurities, 4.85. A cargo of Martinique sugar is imported that tests, crystals, 84.40; impurities, 8.22; water, 7.38. Dry the samples, and 92.62 parts

become 100, and test, crystals, 91.78; impurities, 8.22, and so on.

Evaporation liberates a proportion of molasses impurities; consequently no increase in the percentage of impurities is allowed above, the result of evaporating moisture from raw cane sugar being to diminish the proportion of molasses impurities therein, and increase the crystalline qualities thereof, just as, by natural purging and evaporation of melado, dry muscovado sugar is produced.

Under the dry test innovation a cargo of naturally dark low-quality sugar, useless for consumption until refined at more than double the cost of refining centrifugals, only capable of producing a refined outturn far below the usual outturn from centrifugals in value, may be doomed to pay duty not only on every pound of the full weight of the cargo, water and all, but at the high rate of duty charged upon centrifugals and Javas naturally of a grade and quality above 94 when imported. Nothing could better illustrate the injustice of uniform duty on sugar—whether to 10, 13, 16, or on all sugars—than the illegal discriminations resulting from changing the texture of imported sugar by dry sampling, to increase the revenue therefrom. On the other hand, lumbering the tariff and customs business with different rates of duty on sugar for every number in color, and every degree of crystallizable strength therein determined, or any approach to such a system, would be irrational.

The Treasury Department method of drying samples of sugar for testing cargoes of imported sugars, to levy duty thereon, thus changing the texture thereof, is simply absurd, and an outrage upon merchants and refiners which should at once cease, and better methods obtain. As usual, the pernicious results fall upon consumers.

Refiners who petition for and advocate a uniform duty to No. 13 simply propose to apply trade thuggism to their own throats. How long do such men imagine it will be before Cuba, Demerara and Company, with their English and American allies, will fully refine sugars for this country? Rest assured that these foreign powers will, if successful now, find means to carry a uniform duty to 16; and, when fully prepared for successful competition with American refiners, they will find means to have the sugar duty abolished in short order.

The hopes of American consumers, and for American industries, in regard to sugar, are in the retention of a classification sugar tariff which, when honestly applied, provides us with all grades of raw sugar material for the production of all grades of refined sugars required by consumers, and in pushing forward home production of beet and cane sugar. Any change from the equitable uniformity of the present tariff on sugar is dangerous. Even a reduction of duty on sugar, *which should obtain*, ought to be uniform on all grades.

Actual and prospective agents of foreign sugar producers who advocate and petition for a uniform duty to No. 13 thereby advertise their motives for so doing. On this point it is enough to say that the higher the grades of imported sugars consigned to them the greater their commissions.

Importers and buyers of foreign sugars who advocate and petition for a uniform duty to No. 13 simply desire to accommodate trade, and conduct it upon some substantial basis. Any sugar tariff that remains permanent will suit their business, and as the sky of trade manipulations in sugar-tariff plans seems auspicious for the success of these plausible uniform duty to No. 13 designs against consumers' interests and rights, they fall into line on that side, some at the request of their customers, and some to suit their individual trade interests or prejudices; as a matter of course, thinking little and caring less about the interests of American consumers, industries, and revenue, beyond the question of how much profit can be cleared by each transaction.

The Secretary of the Treasury clamors for forty millions of dollars revenue from sugars. This must be drawn from the food necessities of American consumers, the great mass of whom can only afford to buy the lowest grades of refined sugar, and must, under a uniform duty to No. 13, reduce consumption, because they would be compelled to pay the price of higher grades, or go without; yet it is proposed by uniformists virtually to prohibit the importation of low grades of raw sugar, from which we now actually receive more than 50 per cent. of the revenue from sugar. Although through frauds, which a uniform duty to No. 13 proposes to legalize, we apparently receive more than $\frac{1}{2}$ of the duty from sugar, the No. 13 project proposes to curtail the Secretary's present revenue resources from low grades merely to fatten its projectors.

Refiners of sugar known well enough that glucose and other adulterants can best be employed to their advantage and profit when Centrifugals, Javas, and other high grades are used for refining; the higher the crystallizable strength of raw sugar the more glucose may be added. Centrifugals testing 95 to 98 can be safely reduced with glucose at an enormous profit to refiners, when it would not pay with Manillas and other low-grade sugars. Every pound of glucose used reduces importations of raw sugar to the same extent. *Uniform duty to No. 13 would simply encourage and increase the use of glucose, by shutting out low grades and providing easy and profitable means of offsetting the necessary labor and materials expended in the more skillful and commendable process of refining low grades of raw sugars up to the standard required by consumers without cheating them with adulterants.*

It is irrational to pretend that this government cannot collect the full revenue from sugar under the present classification tariff, and a proviso authorizing the use of analysis and a test line as adjuncts to the Dutch standard, to counteract the increasing practice of discoloring foreign sugars of high intrinsic grade to evade duty. When public interests, American industries, and consumers' wants are equitably considered, there is not a tenable objection against the present tariff classification of sugar for levying duty. The very fact that the principal advocates of and petitioners for a uniform duty to No. 13 strenuously oppose the use of the polariscope and analysis for testing sugars is ominous of fraud.

Adopt such tests and discolorations *must* cease. So long as outside color is allowed to be the standard for levying duty, merchants

will import, and producers will make, discolored sugars of the highest intrinsic quality; and it is boldly sought to legalize this treachery against our government, and to deprive consumers of the refined product from low grades, thus shut out, by obtaining a uniform duty to No. 13. These uniformists complain that the sugar trade is unsettled. Who and what unsettled it? Foreign producers in Cuba and Demerara, and their American allies, by discoloring natural grades of sugars, from No. 11 to above 13 Dutch standard in natural color (which all centrifugals and vacuum-pan sugars of intrinsic grade above 90 or 91 inevitably are intrinsically) to evade duty, and by the maudlin efforts of unskilled Treasury officials to counteract the fraudulent practices, now pressed too far by "truth and true analyses of the sugar question," the frauds must be legalized to quiet the sugar trade by a uniform duty to 13 Dutch standard, while American consumers are to be robbed of low-grade sugar product, and American industries must be throttled to make the fortunes of these allied uniformists.

Mr. Speaker, the agents, importers, refiners, and merchants who, with their foreign and American allies, advocate and petition Congress for a uniform duty on sugar to No. 16, to No. 13, or to No. 10, only seek to enrich themselves. This, as the world now goes, is called business, and needs no comment; but the plans by which they propose to accomplish this (among which appear that of a uniform duty to No. 13 or 10 or 16) are pregnant with gigantic evils and outrages, which their success would entail upon American consumers and American industries, whereby also the consumption of, and revenue from, sugar would be decreased inversely to our growing population, and the existing system of revenue robbery be legalized by Congress.

Uniform duty on raw sugar to No. 13 or to No. 10 means that the raw sugar material we require shall be semi-refined in Cuba and other sugar-producing countries contiguous to the United States and in Hawaii, at an annual industrial loss to this country of at least \$40,000,000. It means the virtual prostration of the sugar-refining and sugar-producing industries of the United States, and the building up of foreign sugar-manufacturing industries at our expense. It means a heavy loss of revenue from sugar or a higher rate of taxation than at present on every pound of sugar we consume. It means legalized oppression and robbery of consumers of sugar, by virtually depriving them of low grades of pure refined sugar, now obtained in quantity from low grades of raw-sugar material. It means adulteration of high grades of refined sugar, which constitute the only possible out-turn from centrifugals and semi-refined sugars in sufficient quantity for consumption, with corn glucose to supply the loss of low grades now required and used for refining. It means American bondage to foreign sugar producers and foreign sugar refiners for years to come. It means the further enrichment of Cuba by from fifteen to twenty millions of dollars annually, to be added to the \$70,000,000 she now draws from us for sugar. It means the exclusion of all means of detecting high-grade sugar frauds upon the revenue, and a frightful increase of robbery

by false sampling and false weighing. It means easy chairs for Treasury officials and customs officers, and the enrichment of official moiety hunters and scourgers of honest merchants who create and sustain American commerce. It means death or lingering sickness to the cane-sugar productive industries of Louisiana, and the crushing in embryo of beet and sorghum sugar productive enterprises in this country. It means colossal fortunes to Cuban and other foreign speculators and their American allies who petition Congress and this committee for uniform duty on all sugar to No. 13 Dutch standard in color, or, failing in that, to No. 10, to the exclusion of lower grades, and without analysis or hinderance of any kind to check their raids upon American consumers, industries, and revenue, already suffering enormously through high-grade sugar frauds thus sought to be perpetuated.

Raw cane sugar being composed of white crystals of sugar and impurities which form black molasses, the proportions of this admixture produces varying shades of color, which have rightly been recognized and accepted as reliable indications of the quality and value of raw cane sugars when in their normal condition. Outside coloration, intended to deceive as to the true value of sugars, having been successfully practiced to evade duty, it has become necessary to employ analysis as an adjunct to the color standard, in order to accurately determine the actual quality and value of imported sugars for the purpose of levying duty thereon correctly.

Uniform duty on raw sugars must be arbitrarily discriminative, and would therefore interfere with and largely prohibit importations of entirely raw sugar material by encouraging the foreign industries of semi-refining and centrifugation of raw-sugar material to the detriment of home manufacturing and sugar productive industries, interfere with the rights of consumers, and curtail consumption; while the only practical duty discrimination in the present sugar tariff is the *uniform 25 per cent.* addendum thereto.

The present tariff classification of melada and other foreign sugars are substantially in accordance with trade usage throughout the world, and therefore are adequate and equitable for levying duty on imported sugars, being peculiarly adapted for such purpose. Consequently, they ought to be retained. Should the following changes or modifications of the present sugar tariff be adopted substantially—reasons for which have already been presented by the writer—consumption will rapidly increase, and the general results be eminently beneficial and satisfactory to the people of this country, and produce over \$30,000,000 revenue per annum.

One. Abolish the 25 per cent. ad valorem addendum altogether, and also reduce the present specific duty on all raw sugars not above 16 Dutch standard in natural color, subject to the 92 line provision at least half a cent per pound pro rata throughout.

Two. All raw sugars under No. 10 Dutch standard in color, containing ninety-two (92) per cent. or more of crystallizable sugar, to pay the same duty as sugars above No. 10 and not above No 13 Dutch standard in color.

Three. Strike out of the present sugar tariff the words, “after

being refined," contained in the section relating to the adulterations and colorations of refined sugars.

Four. Equitable samples of imported sugars to be secured and used for purposes of appraisement as soon as practicable after the arrival and entry of such sugars, and the actual condition of such samples, when first selected, shall determine the grade and quality of the cargoes they represent for levying duty thereon.

During the reading of the paper the following discussions took place:

MR. TUCKER. How much sugar do we consume per capita in this country?

MR. BROWN. The per capita consumption last year was thirty-eight pounds. That includes molasses, melada, and all products of the raw material. We should have received fifty millions of revenue from sugar in 1879 instead of about forty millions, if it had not been for the frauds and swindles committed upon the Treasury.

* * * * *

MR. DUNNELL. These sugars which you denominate centrifugal sugars, are they below the grade of No. 13?

MR. BROWN. They are usually between No. 11 or 12 and No. 14; from that up to 16.

MR. TUCKER. You say that a uniform rate of duty on sugar up to No. 13 Dutch Standard would diminish the amount of sugar required for consumption?

MR. BROWN. Yes.

MR. TUCKER. Do you mean to say that the gross amount of sugar consumed in this country would be lessened?

MR. BROWN. No, sir; but the gross amount of raw material required (being of a higher grade) would be far less for manufacturing purposes. Consequently, every pound less would be so much less duty to the government.

* * * * *

MR. GARFIELD. Are the sugars that are produced in the Hawaiian Islands centrifugal sugars?

MR. BROWN. No, sir; but by the industry expended there the sugars are made of high grade, which we must pay for.

MR. GARFIELD. Do they use the centrifugal process in the Hawaiian Islands?

MR. BROWN. Not that I am aware of at present. They bring the sugars up by a high degree of draining, and they also clay their sugars.

MR. TUCKER. How many million pounds of sugar are introduced from the Sandwich Islands into this country up to No. 7?

MR. BROWN. None.

MR. TUCKER. How many between No. 7 and No. 10?

MR. BROWN. Eight million pounds.

MR. TUCKER. And between No. 10 and No. 13?

MR. BROWN. Sixteen million pounds.

MR. TUCKER. And from No. 13 up to No. 16?

MR. BROWN. Fifteen million pounds.

MR. TUCKER. And how much above No. 16?

Mr. BROWN. Only one million pounds.

Mr. TUCKER. Have you any statistics to show the different grades of sugar imported into this country from the Hawaiian Islands before the treaty with the Hawaiian Government, under which sugar is admitted free?

Mr. BROWN. Yes; but I have not the statistics with me. I will furnish them to the committee.

Mr. GIBSON. Be kind enough also to furnish to the committee at the same time a statement showing the quality of sugars now imported from the Hawaiian Islands.

Mr. BROWN. I will do so.

Mr. MILLS. Also state the effect which that Hawaiian treaty has had on the price of sugars in San Francisco, if it has had any effect.

Mr. BROWN. I will do so.

Mr. GARFIELD. Do the Hawaiian Islands refine their sugar for their own use?

Mr. BROWN. They refine it by claying it and bringing it up to the standard of fair Louisiana eating sugar.

Mr. GARFIELD. Do they buy refined sugars from us?

Mr. BROWN. Not a pound.

Mr. GARFIELD. Do they buy refined sugars from anybody?

Mr. BROWN. Not a pound that I am aware of. I never have seen any statistics from the British Government (with which I am in constant communication) or from France, showing that they do.

Mr. MILLS. Do you know who they are who are raising sugar in the Hawaiian Islands?

Mr. BROWN. It is simply a continuation of the old process of raising sugar by the aborigines. Of course it brings in Americans and American capital and other people, who share the profits.

Mr. MILLS. Do you know any large American capitalist who is engaged in this sugar business in the Hawaiian Islands?

Mr. BROWN. I shall be able to give you those facts, but I have not embodied them here.

Mr. KELLEY. Have you any information on the question as to whether the sugar producers in the Hawaiian Islands are in the habit of importing and employing Chinese laborers?

Mr. BROWN. I have some information on that point.

Mr. KELLEY. If you have any accurate information on the subject I wish you also to submit it.

Mr. BROWN. I shall do so.

* * * * *

Mr. GARFIELD. Define what you mean by thuggism in trade.

Mr. BROWN. I mean what is sometimes called cut-throatism; that is, the attempt of one party by any means to obtain supremacy in trade, thereby strangling every interest that comes in the way.

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Mr. GIBSON. What is the name of the gentleman who furnished you with these figures in regard to sugar raising in Louisiana?

Mr. BROWN. Mr. Schlatrie.

Mr. MILLS. Have you got statistics showing the American production of sugar for the last forty years?

Mr. BROWN. Not here, but I will furnish such with pleasure.

* * * * *

Mr. BROWN here exhibited to the committee two small glass phials, one containing very dark sugar of large grains, and the other containing what appeared to be a pure white sugar, and he informed the committee that these two specimens were identically the same sugar and that that sugar had been recently entered at the port of Boston in the dark shape and had been admitted as number 10 sugar. The white sugar in one of the specimens was nothing else than the dark sugar crushed, and he invited any member of the committee to test the accuracy of that statement by crushing some of the large dark colored grains—which Mr. Garfield proceeded to do, with the same result.

Mr. GARFIELD. Do you mean to say that if these coarse crystals are pulverized the result will be a clear white sugar?

Mr. BROWN. Yes. This sugar I pulverized myself. It was entered at No. 10, while it should have been entered at No. 20.

The CHAIRMAN. What became of the coloring matter that appears in the dark specimen?

Mr. BROWN. The coloring matter in this only amounts to one per cent.

Mr. TUCKER. The coloring matter is simply exterior to the crystals?

Mr. BROWN. Yes, sir. These crystals are built up in vacuum pans where the moisture is thrown out and then a mixture of molasses is thrown in, and this is the result. The intrinsic color of this sugar is No. 20.

Mr. CONGER. Do I understand you to say that this specimen of light-colored sugar, which you exhibit, was crushed by yourself from these dark grains?

Mr. BROWN. Yes, sir; and I should be happy to have any member of the committee take some of these coarse grains and crush them here.

Mr. GARFIELD. This sugar, as I understand you, was entered as No. 10?

Mr. BROWN. Yes.

Mr. GARFIELD. And this white sugar is the same as the dark sugar when crushed?

Mr. BROWN. Yes.

Mr. GARFIELD. No other operation has been performed upon it, except crushing it?

Mr. BROWN. No, sir.

Mr. GARFIELD. And this dark-colored sugar is No. 10 in color?

Mr. BROWN. Yes.

Mr. GARFIELD. And this white sugar produced by crushing No. 10 is No. 20 in color?

Mr. BROWN. Yes.

Mr. GARFIELD. Would a similar process as to No. 7 have the same effects?

Mr. BROWN. No; not if it is No. 7 natural color.

Mr. GARFIELD. Why not?

Mr. BROWN. Simply because No. 7 is of itself carried as high in color as it can be without further refining.

Mr. GARFIELD. This specimen (holding up the dark-colored sugar) has a yellowish straw color like wheat. When crushed it is like flour. There has been no artificial coloring, you say, except in so far as crushing it is an artificial process, but the one specimen is the natural wheat and the other is the ground flour of the same wheat.

Mr. BROWN. Yes sir; these are both the natural product.

Mr. GARFIELD. There is no coloring matter in either of these specimens?

Mr. BROWN. No.

Mr. TUCKER. The crystal of sugar is always in itself white, is it not?

Mr. BROWN. Yes; pure white.

Mr. TUCKER. The coloring matter in the specimen which by crushing became white was therefore merely on the surface of the crystal?

Mr. BROWN. Entirely so.

Mr. TUCKER. The crystal itself being white, the substance when crushed is white, except the mere infinitesimal coloring on the surface?

Mr. BROWN. Yes.

Mr. GARFIELD. What is this yellowish color on the surface of these crystals? Is it a film of molasses?

Mr. BROWN. In this case it is simply coloring matter or molasses. The syrup may have been burned a trifle. But in this other case (holding up a specimen of Demerara sugar) it is a different matter. To produce this color in Demerara they use lime in various forms. That is the case particularly for our benefit. Demerara sugar intended for England is not limed to that extent.

* * * * *

Mr. GIBSON. You use the phrase "making sugar." Do we make sugar in this country?

Mr. BROWN. In using the word "make," I simply mean the reduction of cane juice to a crystallizable form. That I call making sugar.

Mr. GIBSON. The crystal exists in the sugar in nature?

Mr. BROWN. Yes.

Mr. GIBSON. And the whole process of making sugar is to separate the wood fiber and the water from the pure crystal?

Mr. BROWN. Yes.

Mr. GIBSON. And that process discloses the crystals?

Mr. BROWN. No, sir; the crystals are disclosed at first, inasmuch as they are formed of molasses and sugar.

* * * * *

Mr. GARFIELD having in the meantime crushed some of the coarse sugar, showed the result to the members of the committee.

Mr. KELLEY. Then, instead of the polariscope, all that you would want to ascertain the real grade of the sugar would be a pestle and mortar?

Mr. BROWN. That would amply settle the difficulty. It would

would amply settle it until you came to discoloration by means of lime, or of lime subjected to the action of sulphuric acid.

Mr. KELLEY. But with the class of sugars that you have been speaking of, a pestle and mortar would disclose the fraudulent coloring?

Mr. BROWN. Certainly.

Mr. MILLS. What did that sugar cost?

Mr. BROWN. I was informed that the cost of it was either 6 or 6½ cents a pound, duty unpaid. It was entered as No. 10, and paid duty at that rate,

Mr. KELLEY. What ought that sugar to have been worth if it were No. 10?

Mr. BROWN. If it were No. 10, it should have been worth about 4 cents a pound in the producing country, duty unpaid.

Mr. CONGER. What would it cost to reduce this dark sugar [indicating one of the specimens] in a grinding mill to this white sugar [indicating the other specimen]?

Mr. BROWN. One-eighth of one of per cent.

Mr. KELLEY. If every family kept its own pestle and mortar, it would only cost the original investment of capital in the pestle and mortar?

Mr. BROWN. Yes.

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Mr. MORRISON. You said that you were going to talk in the interest of consumers, and you have been making pretty much the same argument as is made by refiners of low-grade sugars. Do I understand you to reason that the interest of the consumers and the interest of the refiners of low-grade sugars are identical?

Mr. BROWN. I do not reason in that way.

Mr. MORRISON. Then I do not understand you.

Mr. BROWN. A branch of manufacturing trade may of itself be very profitable and yet be in accordance with the interests of the consumer, while another manufacturer in the same branch of business may so manipulate his business by cheating the consumer as to make money much faster.

* * * * *

Mr. MILLS. Coming back to those two specimens of sugar which you have shown us, did I understand you to say that that sugar was admitted at a low grade?

Mr. BROWN. Yes; it was admitted at No. 10 and should have been rated at No. 20.

* * * * *

Mr. MILLS. What is the best kind of a tariff on sugar—specific or advalorem?

Mr. BROWN. The specific tariff is preferable for the simple reason that the moment you turn to a direct ad-valorem tariff (not in principle but in practice) those frauds are diverted into another channel.

Mr. MILLS. How would you have the duty specific?

Mr. BROWN. I would have such a specific duty as will in substance retain the present order of classification of sugar by the

color standard up to whatever you choose to make it in crystallizable strength—say No. 92.

Mr. MILLS. How are you going to detect frauds if you are to be governed by the color standard?

Mr. BROWN. As an adjunct of the color standard, I would introduce analysis or grinding, or any other process by which the Secretary of the Treasury would be able to determine the grades of sugar. Either the polariscope or analysis will answer the purpose.

Mr. KELLEY. Or grinding?

Mr. BROWN. Yes.

Mr. TUCKER. Was that (indicating the dark-colored specimen) the natural coloring of that sugar?

Mr. BROWN. No, sir; it is not a natural color for that sugar.

Mr. TUCKER. Why is it not?

Mr. BROWN. Simply because after that sugar is worked in the vacuum pan it is white, or nearly so. If this sugar were left at its natural color, it would be up to No. 19 at least.

Mr. MILLS. Do you suppose that that sugar which was entered here as No. 10 was purchased from the producer as No. 20?

Mr. BROWN. The producer certainly sold it as No. 20, and it cost about 6 cents a pound.

Mr. MILLS. And it was brought here and entered as No. 10?

Mr. BROWN. Yes.

Mr. MILLS. Then, would it not have been safer for the Treasury to rely upon the foreign invoice as to the value of the sugar?

Mr. BROWN. It would under existing circumstances, considering the immense growth of these transactions.

Mr. TUCKER. If this sugar was rated by the Dutch standard, is it No. 10 Dutch standard?

Mr. BROWN. It is not No. 10 unless we choose to measure everything else in the same way, and unless we make it the custom and law that everything is to be determined by outward appearance.

Mr. TUCKER. Does not the Dutch standard make color-line the test?

Mr. BROWN. The Dutch standard as applied in Holland and as applied with us is two different things. In Holland they would not take that crystal (indicating) and compare it with the Dutch standard until they had crushed the crystal. We here take it and compare it with the Dutch standard outwardly, and admit the sugar at a low rate, imagining that the law compels that to be done. The efforts by the Treasury Department to counteract these things have led to this inevitable conflict, and to all the circulars which the Secretary has been obliged to issue in regard to sampling of sugars. Why? Simply because there is no way until Congress says that there shall be some other method of ascertaining the intrinsic color of sugars besides the outward appearance as compared with the Dutch standard.

Mr. GIBSON. What other method do you suggest?

Mr. BROWN. I suggest that all sugars shall be subject to the test of analysis. Polarization is of itself quite competent under honest management to determine the crystallizable strength of sugar, but it may be easily mismanaged. But if we take analysis, it can be

readily done. A man can analyze twenty samples of sugar altogether, and go through the analyzation very rapidly. I would undertake to have it done in from fifteen to thirty minutes, except in the matter of determining the ash, which must be done by burning the sugar, and that takes a little longer time. Analysis is perfect in that regard, but if you add to the analysis the Dutch standard, and crushing the sugar into the proper condition for comparing it with the Dutch standard, then it is impossible to perpetrate fraud.

Mr. GARFIELD. If instead of receiving that sugar in the custom house according to the standard which would make it No. 10, the appraiser were authorized to crush it (as I have done,) he then could grade it according to its intrinsic color. In other words, if the appraiser were permitted to go by intrinsic rather than by external color, he would get nearer the truth?

Mr. BROWN. He would get nearer the truth.

The committee here adjourned until to-morrow.

WASHINGTON, D. C., *January 30, 1880.*

Mr. HENRY A. BROWN came before the committee and concluded the statement commenced by him yesterday. He said:

Mr. Chairman and Gentlemen: As to the point of discoloration, I mentioned the fact yesterday that it was impracticable to color low-grade sugars provided they were of intrinsic color below No. 10 Dutch standard, and provided they had not been turned into centrifugals at all. Any one of these sugars (indicating the specimens before him) will illustrate that fact. There is but one possible way by which anybody can raise the grade of color of a low grade of sugar which is below 10, provided it is not brought into a centrifugal grade or crystal, and that way is by heating or evaporating the moisture in the sugar. This process, of course, takes from the raw material that is imported and on which duty is paid, and it increases the crystallizable strength on the amount of crystals in the sugar that is left. The more you evaporate or eliminate moisture and other impurities the more you increase the crystals in the sugar. This sample [putting some of it in a mortar] is a very low-grade sugar, below No. 7 Dutch standard. You may grind it as much as you like and the color will still remain below No. 7 [demonstrating.] The moment that you go above No. 90 in crystallizable strength of sugar, and increase the size of the crystals, this sort of thing can no longer be done without disclosing a higher grade of sugar or a higher intrinsic color. Consequently, no low-grade sugars can evade the duty under the Dutch standard except by false weighing, and undoubtedly that is done to a great extent. But, otherwise the low-grade sugars are absolutely at the mercy of any common examiner who chooses to put honesty into the examination, and he cannot be deceived.

Mr. CONGER. Can you take a high-grade sugar and color it so that when ground in that way it will not disclose its true character?

Mr. BROWN. It is impossible, provided the coloration has not pervaded it thoroughly. Any man can take that sugar, carry it to the

fire and heat it, thus eliminating moisture, increasing the crystals, and eliminating with the moisture a portion of the coloring matter. Consequently, the grade of the sugar comes up. It is not so with the crystals which I now show to the committee. You may heat them or do with them what you like and still the intrinsic color is the same.

I now come to the Demerara coloring of sugars. One of my agents has sent me samples of Demerara sugar and another of my agents in Cuba is getting other samples for me, wherein there is no discoloration of any importance. He takes the sugar before the coloration takes place. Now, this sugar (holding up a sample) is colored by what we call burnt molasses. Formerly they colored sugar in Demerara by the use of sulphate of lime or lime in excess. What was the difficulty there? The difficulty was very evident. They found that by the introduction of too much lime, particularly of sulphate of lime, the crystallizable strength of the sugar was reduced and true dextrine turned out, which is an imitation of glucose. Therefore, it was unmarketable, and that mode of coloration was abandoned for the natural colors which they now employ. When Mr. McKay says that they do not use acids in coloring sugars in Demerara, he tells the truth. Of course they do not. It would not pay to use them any longer. They discover their mistake in using them, and therefore they no longer use sulphates of lime. Why? Because they blackened their sugars so much and impregnated them so much and turned so much of their crystallizable sugar into glucose, that the market would not take such sugars, and therefore the sugar growers in Demerara resorted to the natural colors. That is the whole secret with the present troubles in the Demerara sugars. Other modes may be used, but it is impossible (in order to make it a profitable, practical operation) to discolor sugar until the crystallizable strength of that sugar has been raised. The moment you go beyond 90 you raise the crystallizable strength of sugar and its value rapidly. Consequently, the Demerara people no longer use a preparation of lime in the preparation of their sugars, but when they get them up as high as 98 in crystallizable strength, then the simplest thing in the world is to discolor the exterior of the crystals (as I showed you yesterday.) They do it just as it is done with rock candy, by first getting a crystal and then building that crystal up by adding sugar to it. The bigger the grain the better and stronger is the crystal, until they even reach as high as 99½ per cent.

Mr. KELLEY. Show us by an experiment that this sugar [pointing to a sample] is colored externally.

Mr. GIBSON. That sugar is colored simply by caramelizing the strike.

Mr. BROWN. Yes, sir.

Mr. KELLEY. It has been asserted here that there is no artificial coloring of Demerara sugar. Now, if you can establish that there is such coloring, and that it is a fraud, why not do it, instead of simply resting upon argument and assertion?

[Mr. Brown proceeded to make the experiment by pouring some

coarse-grained sugar into a mortar, and by pulverizing it, the result being a sugar much lighter in degree than the coarse sugar.]

Mr. TUCKER. Is that the Demerara sugar with which you are making that experiment?

Mr. BROWN. Yes. This is only a single illustration, but it is quite enough to show the intrinsic color of this discolored sugar, by which it will be found that the importers dodge one rate if not two rates of duty. This would become two or three degrees lighter by further pulverization.

Mr. GARFIELD. At what grade, under the Dutch standard, would that sugar pass which you have just pulverized?

Mr. BROWN. This sugar, as pulverized now, would pass at the grade of No. 14 Dutch standard. It came in below No. 7.

Mr. GARFIELD. That is, you have raised it seven degrees by pulverization.

Mr. BROWN. Yes, sir.

Mr. KELLEY. And by imperfect pulverization?

Mr. BROWN. Yes. This sugar would come up to No. 16 very readily.

Mr. GIBSON. Is that dark sugar colored by artificial material.

Mr. BROWN. It is colored down by burnt molasses—impurities which may be termed caramel.

Mr. GIBSON. The color matter may be a part of the same material out of which the sugar itself is made?

Mr. BROWN. Yes, sir; it is the drainings from the sugar originally. After having raised the sugar to its crystallizable strength, a certain percentage of the drainings is thrown back, thereby reducing the coloring to a sufficient degree. A Boston merchant testified in a case that the agreement with the sugar makers was that the sugar should test 96 degrees in crystallizable strength, but should be colored so as to come in at No. 10 Dutch standard.

Mr. CARLISLE. Where did you get that sample which you have just shown us?

Mr. BROWN. I got my samples from cargoes.

Mr. CARLISLE. Where did you get that particular sample?

Mr. BROWN. This particular sample came from one of my agents in Cuba. I think it is generally known that I have been investigating the matter thoroughly, and consequently must have agents.

Mr. CARLISLE. You said that this sugar had passed under No. 10.

Mr. BROWN. I do not employ any sample until it has been actually passed.

Mr. CARLISLE. If you got this sample from your agent in Demerara, how can it have passed the custom-house?

Mr. BROWN. I happened to have this one sample of Demerara sugar at my room, and I took it. Of course I state frankly that this sample has not come in, but I have samples which have come in.

Mr. CARLISLE. I understood you to state that that sugar had passed at the custom-house.

Mr. BROWN. I shall show you right here samples that did pass. Here [exhibiting a sample] is one that passed, only in this case the sugar is blacker and worse than in the sample which I produced.

Mr. CARLISLE. Have you ever pulverized any of that sample?

Mr. BROWN. Certainly. Here it is [exhibiting sample of lighter-colored sugar.] Here is the pulverized sugar.

Mr. KELLEY. That is a pulverization of the sugar which did pass?

Mr. BROWN. Yes.

Mr. CARLISLE. In what custom-house did that sugar pass, and to whom was it consigned?

Mr. BROWN. It passed at the New York custom-house, but I am unable to give data in regard to it, because my samples are so numerous. I can trace this sugar right to the Government archives if desirable.

Mr. GARFIELD. Now, have you got any specimens of this wet sugar dried, so as to show the difference in color between the wet and the dried?

Mr. BROWN. No; but that can be easily done by drying some at the fire in this room. [A small quantity of the wet sugar was placed upon the fire shovel and heated at the fire, the result being to make its color somewhat lighter.]

Mr. GARFIELD. What do you recommend the committee to do?

Mr. BROWN. I would recommend the committee to allow the present tariff to remain as it is—Dutch standard and all—and to add to the power of the Secretary authority to employ polarization, which discovers immediately the crystallizable strength, and consequently the market value, of sugar, and also to employ, when he sees fit, analysis in order to detect other ingredients in the export of refined sugar, lest he should be paying a drawback on sand and other articles. With that combination, and with the line drawn between what are known to be sugars that never rise above 91, all sugars testing above 92 should pay the higher rate of duty.

Mr. KELLEY. Would it not be well to insert in the tariff a provision that appraisers shall not appraise crystals of above a certain size, so as to compel them to grind some of the sugar before appraising?

Mr. BROWN. I omitted to say that all sugars of all grades should be ground and brought to the consistency, so to speak, of the Dutch standard, which, as you see, [exhibiting a sample,] is a fine-ground sugar, and consequently its intrinsic color is wholly shown.

Mr. TUCKER. Suppose you have the intrinsic color absolutely shown by grinding, would not the Dutch standard alone avail?

Mr. BROWN. The Dutch standard alone would avail, but, in case of any question, the Secretary should still have authority to employ analysis.

Mr. GARFIELD. Would the Dutch standard avail with wet sugar?

Mr. BROWN. Perfectly, always. The grinding would not affect the low-grade sugars or the wet sugars, and therefore should be confined to the others. If the Secretary is authorized to adopt these modes, the very moral power or moral suasion, so to speak, which you have thus exerted on importers would immediately put a stop to the coloration of high-grade sugars. But the Secretary must have authority to do this thing.

The CHAIRMAN (at the suggestion of Mr. Perot.) I am requested to ask you whether you have ever been in Demerara?

Mr. BROWN. I have not been personally. I have been in the South American sugar-producing countries, and in very many others, having been a great traveler.

The CHAIRMAN. I am also requested to ask you whether you are familiar with sugar manufacture from the sugar cane?

Mr. BROWN. I will answer outside any questions which outsiders may choose to put to me; but I prefer now to confine myself solely to questions by the committee.

ADDITIONAL STATEMENT OF MR. HENRY A. BROWN.

The following paper was filed by Mr. Henry A. Brown:

Mr. Searles, apparently in defense of false classifications of high-grade sugars as low grade sugars to evade duty, misstated in his supplementary remarks before the committee on Saturday, January 31, that "Mr. Brown began with 1877 and muscovado sugar," in his (Mr. Brown's) tabular statement of classifications of imported sugars for duty in 1878, wherein I prove enormous frauds on the revenue.

For the information of the honorable Committee on Ways and Means, and to exhibit more fully the magnitude of the frauds perpetrated by dissolving high-grade sugars to evade duty, which it is purposed by uniform rate of duty to No. 13 Dutch standard to legalize, I here present the compiled tabular statement and explanations on this point contained in my "Revised Analyses of the Sugar Question," from which I condensed my illustrations of false classifications on Thursday last before this committee. It will be seen that I neither named muscovado sugars nor referred to them specifically in any manner in this connection.

The tabular deductions are as follows:

In the official statement in the Bureau of Statistics of average foreign cost of raw sugars at places of shipment, computed in coin on the basis of foreign prices current in the fiscal years 1876 and 1877, is recorded as follows in regard to sugars of natural color—in other words, undoctored sugars:

Sugar not above No. 7. D. S., in color	Per pound.
Sugar above 7, not above 10 D. S., in color	3.50 cents
Sugar above 10, not above 13 D. S. in color	4.50 "
Average cost of low-grade sugar	4.75 "
Melado and cane sirup	4.25 "
	3.50 "

According to the sworn testimony of importers and refiners as officially recorded, the prices paid foreign producers for raw sugars imported in 1877, 1878, average as follows:

Sugar not above No. 7 D. S., in color	Per pound.
Sugar above 7, not above 10 D. S., in color	3.25 cents
Sugar above 10, not above 13 D. S., in color	3.75 "
Average cost of low-grade sugars	4.00 "
Melado and cane sirup	3.66 "
	2.75 "

The following tables, XIII to XVIII inclusive, present a complete exhibit of the grade classifications for duty of dutiable raw sugar entered into consumption in the fiscal years 1876, 1877, 1878; declared value thereof, cost per pound, liquidated duties, and significant comparisons, wherein the *modus operandi* of evading duty on sugar of high grades by color-toning, false sampling, and under classification is made vividly evident:

Grades of dutiable sugar entered into consumption:

XIII. Sampled and classed not above 7 D. S.		Declared value above 10 D. S.	Cost per lb.	Liquidated duty received.
1876	534,822,824 lbs.	\$20,344,948	3.80c.	\$11,654,445
1877	757,946,855 lbs.	37,501,481	*4.94c.	16,580,087
1878	860,287,182 lbs.	41,516,497	†4.82c.	18,818,782
Total	2,153,056,861	99,362,926	†4.61c.	47,053,314
XIV. Sampled and classed above 7 N. A. 10 D. S.		Declared value above 13 D. S.	Cost per lb.	Liquidated duty received.
1876	869,785,687 lbs.	\$36,593,778	4.20c.	\$21,628,822
1877	604,317,151 lbs.	29,748,890	‡4.92c.	15,107,928
1878	618,019,876 lbs.	33,232,883	§5.37c.	15,450,497
Total	2,092,122,714	99,575,551	¶4.75c.	52,187,247
XV. Sampled and classed above 10 N. A. 13 D. S.		Declared value above 13 D. S.	Cost per lb.	Liquidated duty received.
1876	150,107,868 lbs.	\$6,543,106	4.36c.	\$4,092,846
1877	88,462,336 lbs.	4,371,003	**4.94c.	2,488,003
1878	72,316,574 lbs.	4,110,502	††5.68c.	2,033,904
Total	310,886,778	15,024,611	††4.83c.	8,614,753
XVI. Sampled and classed above 13 N. A. 16 D. S.		Declared value equals 16 D. S.	Cost per lb.	Liquidated duty received.
1876	6,127,732 lbs.	\$318,830	5.20c.	\$207,593
1877	4,536,195 lbs.	218,943	4.82c.	155,931
1878	1,474,118 lbs.	73,831	5.01c.	50,673
Total	12,138,045	611,604	5.03c.	414,197
XVII. Sampled and classed above 16 N. A. 20 D. S.		Declared value equals No. 20 D. S.	Cost per lb.	Liquidated duty received.
1876	1,011,458 lbs.	\$58,045	5.73c.	\$40,107
1877	92,477 lbs.	6,181	6.68c.	3,756
1878	561,068 lbs.	35,491	6.32c.	22,793
Total	1,665,003	99,717	5.98c.	66,656
XVIII. Sampled and classed above No. 20 D. S.		Declared value above No. 20 D. S.	Cost per lb.	Liquidated duty received.
1876	24,976 lbs.	\$2,003	8.02c.	\$1,248
1877	32,840 lbs.	2,590	7.88c.	1,642
1878	216,294 lbs.	16,866	7.79c.	10,815
Total	174,110	21,459	7.82c.	13,705

Under the above official classification, apparently, the average rate per cent. ad valorem duty actually paid in the fiscal year ending June 30, 1878, on each of the classifications for duty of imported sugar consumed in said year, liquidation of duty being complete, is as follows; but the true ad valorem rate can only be estimated, inasmuch as it depends on honest classification, which has not recently

* Testimony of importers and refiners, No. 7 sugar costs 3.25 cents.

† From estimates of experts, No. 7 sugar costs 3.50 cents per lb.

‡ Average estimate of experts, No. 7 D. S. sugar costs 3.375 cents.

§ Testimony of importers and refiners, No. 10 costs 3.75 cents.

¶ From testimony of other experts, No. 10 costs 4.00 cents.

** Average estimate of experts, No. 10 sugar costs 3.875.

†† Testimony of importers and refiners, No. 13 costs 4.00 cents.

‡‡ From estimates of other experts, No. 13 costs 4.50 cents.

§§ Average estimates of experts, No. 13 costs 4.25 cents.

obtained in levying duty on centrifugal and other high grades of imported sugar :

XIX. 1878. Classifications.	Quantity consumed, lbs.	Declared value.	Duties liquidated.	Per cent. ad val.
All not above No. 7.....	860,287,172	\$41,516,497	\$18,818,782	45.33
Above 7 N. A., 10 D. S.....	618,019,876	33,232,883	15,450,497	46.49
Above 10 N. A., 13 D. S.....	72,316,574	4,110,502	2,033,904	49.48
Above 13 N. A., 16 D. S.....	1,474,118	73,831	50,673	68.63
Above 16 N. A., 20 D. S.....	561,068	35,491	22,793	64.22
All above 20 D. S.....	216,294	16,866	10,815	64.12
Total dutiable in 1878.....	1,552,875,112	78,986,070	36,387,464	46.00

The evident purpose of the sugar tariff of 1870 was to levy a specific duty on sugar equivalent to an ad valorem duty of about 50 per cent.; and the addition of 25 per cent. ad valorem levied upon said specific duty in 1875 would naturally increase the duty to 62.50 per cent. on the actual cost or foreign market value of all sugar, up to No. 16 Dutch standard, that cost not less than $3\frac{1}{2}$ cents and upwards per pound. Sugar costing less than $3\frac{1}{2}$ cents per pound in the foreign market would of course pay more than 62.50 per cent. ad valorem.

Under an honest classification of imported sugars, the average ad valorem duty in 1878 would have shown about 64 per cent.; for instance, about 20 per cent. of all sugar now entered into consumption is not above No. 7 Dutch standard. In the fiscal year 1878 there entered into consumption 1,552,875,112 pounds of dutiable sugar, 20 per cent. of which is 310,575,022 pounds, not above No. 7; average cost, say, 3.50 cents per pound; amounts to \$10,870,-125.77; duty at 2.1875 cents per pound would be \$6,893,828.58, or 63.41 per cent., instead of 45.33 per cent., as represented under the false classification for duty in 1878.

The case stands as follows for the fiscal year ending June 30, 1878: Consumption, 1,552,875,112 pounds of dry sugar, valued in the foreign market at \$78,986,070, or 5.086 cents per pound; paid a duty of \$36,387,464, or only 2.34 cents per pound on an average grade equal to No. $8\frac{1}{2}$ Dutch standard, while the actual foreign cost and value of the sugar consumed, evidenced in the declared value and confirmed in the home market, clearly prove the quality and natural grades have been on the average between No. 13 and 16 Dutch standard, individual trade experiences, theories, and testimony of interested sugar merchants to the contrary notwithstanding.

The above tabular classifications are from the official records, foreign values as declared included; the testimony in regard to foreign values of raw sugars was given before the sub-committee of the Ways and Means Committee in New York, September, 1878, at previous investigations, and since, by men of undoubted integrity, engaged in importing sugars from all sugar-producing countries, and by refiners. The deductions and classifications of facts are my own, and are incontrovertible.

It is now coolly purposed by the advocates of and petitioners for a uniform duty on sugar to No. 13 Dutch standard, in the face of

these exposures of systemized frauds on the revenue, to carry on a still more gigantic system of frauds upon the people; in plain language, they propose to outrage and punish American consumers by depriving the people of the refined product of low grade raw sugars, the importation of which is to be virtually prohibited by a uniform duty on all grades of imported sugars to No. 13 Dutch standard; not only this, but such results would be calamitous to home industries, revenue, and commerce, as I have elsewhere proved.

Shall Congress succumb to the imperious demands of men who boldly declare before this committee, in substance, that they do not want to make the refined sugars required by the mass of consumers because there is less money in it than in high grades, or yield to uniform duty men, who admit discolorations and false classification of imported sugars to evade duty, and claim reward for such nefarious practices of power to rob the people and deplete the Treasury legally hereafter?

Has the time arrived when, for the nonsensical reason alone that it will be easier to collect the duty from sugar under a uniform tariff to No. 10 or 13 or 16 Dutch standard (a reason which at first sight seems plausible, but which analysis proves to be mistaken,) the interests of fifty millions of American consumers, producers, and manufacturers of sugar shall be tossed bodily into the keeping of those whose hands and high-grade sugars are discolored by fraud for greed of gain already?

There is no theory about these statements; they are classified facts and reliable evidence. The intent of a uniform duty on sugar to No. 13 Dutch standard, in color—without check or legal means of detecting frauds, or even with them—means evil, and that continually, against the people and their industries and food necessities.

Mr. Searles, apparently in defense of discoloration of high-grade sugars to evade duty, in his closing remarks on Saturday, January 31, said in substance, that, having tampered (experimented) with low grade sugars the evening previous, after my practical illustrations of illicit high grade practices had been given before the committee, he found that by heating the sugar over the fire—in other words, by semi-refining the low-grade sugar, and then grinding it—the color was raised somewhat. Mr. Searles overlooked the fact that, in order to raise the color of low-grade sugar even somewhat, he was compelled, before grinding them, to change their natural texture entirely by semi-refining; in other words, by heat and evaporation.

I distinctly explained and illustrated this to the committee on Thursday, and again on Friday, when grinding low-grade sugars on the one hand, and Demerara and Cuban colored centrifugals on the other, and when unfolding Cuban and Demerara method of discoloring centrifugals and vacuum-pan sugars to evade duty; and I repeat, it is impracticable and unprofitable to tamper with sugars of natural make and color below No. 10 Dutch standard, or in the case of muscovadoes and molasses sugars above No. 10, to evade duty, until the intrinsic grade and color of the sugar has first been raised and the crystallizable strength brought above 90 or 91 per

cent. in 100 parts of raw sugar material. Then discolorations are practised to evade duty, as explained and practically illustrated in actual view of the honorable Committee on Ways and Means by me, wherein it was proved that the discolored centrifugals from Cuba and Demerara required no heat or change of inherent properties to develop No. 16 or No. 20 Dutch standard, actual in color, in a No. 7 Dutch standard, or No. 10 Dutch standard, *apparent* in color, made low in color by discolorants, while high in crystals to evade duty.

Neither should it be forgotten that Demerara official records prove that her sugar producers and manufacturers have testified against themselves, declaring boldly, under oath, their use of discolorants when making sugars for the American market of high crystallizable strength, but in color below 7 or 10, as the case may require. Premiums have even been offered in Demerara for the best samples of discolored sugars of highest test, for the American trade.

Surely it cannot be that Congress will reward these self-convicted manipulators and their American allies, by enabling them to deprive American consumers of the cheap and pure refined sugars they now obtain from low-grade raw-sugar material that would be prohibited under a uniform duty of No. 13 Dutch standard; which treachery against the nation is urged upon this committee and upon Congress, under the pretense that the Secretary can collect the revenue a trifle easier, and all such balderdash.

Mr. Brown also submitted the following paper in response to questions put to him by various members of the committee.

As to the effect of Hawaiian sugars on prices in San Francisco?

Answer. The effect has been merely to maintain prices on the Pacific coast at the highest point; in other words, not the slightest benefit to consumers has resulted from the importation of Hawaiian sugars into California duty free; on the contrary, the country loses the duty on said sugars and an equal amount in industry or labor expended in Hawaii in raising the grades or semi-refining her sugars for us, while Hawaiian free sugars cost or are sold for the same when landed in California as similar grades of dutiable sugars, plus duty, cost or are sold for when landed in Boston or New York.

As to the American production of sugar for the last forty years? In reply I present herewith the following tabular compilation, which exhibits the cane-sugar product in the United States during the last forty-three years and the market value thereof, compiled from the highest official authorities by myself:

Crop years.	Total crops.	Total value.	Crop years.	Total crops.	Total value.
	<i>Pounds.</i>			<i>Pounds.</i>	
1835-'36-----	30,000,000	\$2,700,000	1857-'58-----	307,700,000	\$17,900,000
1836-'37-----	70,000,000	4,200,000	1858-'59-----	414,800,000	25,000,000
1837-'38-----	65,000,000	5,063,000	1859-'60-----	225,100,000	18,200,000
1838-'39-----	70,000,000	4,375,000	1860-'61-----	263,200,000	14,469,000
1839-'40-----	115,000,000	5,750,000	1861-'62-----	528,300,000	25,100,100
1840-'41-----	87,000,000	4,785,000	1862-'63-----	96,000,000	7,750,000
1841-'42-----	90,000,000	3,600,000	1863-'64-----	84,500,000	13,800,000
1842-'43-----	140,000,000	4,750,000	1864-'65-----	10,800,000	2,000,000
1843-'44-----	100,000,000	6,000,000	1865-'66-----	19,900,000	2,847,000
1844-'45-----	200,000,000	9,000,000	1866-'67-----	42,900,000	5,360,000
1845-'46-----	186,600,000	10,266,000	1867-'68-----	41,400,000	5,800,000
1846-'47-----	140,000,000	9,800,000	1868-'69-----	95,100,000	11,610,000
1847-'48-----	240,000,000	9,600,000	1869-'70-----	99,500,000	10,442,000
1848-'49-----	220,000,000	8,800,000	1870-'71-----	168,900,000	14,261,000
1849-'50-----	269,800,000	13,396,000	1871-'72-----	146,900,000	13,911,000
1850-'51-----	231,200,000	12,678,000	1872-'73-----	125,300,000	10,900,000
1851-'52-----	257,100,000	11,827,000	1873-'74-----	103,200,000	8,555,000
1852-'53-----	368,100,000	15,453,000	1874-'75-----	134,500,000	11,265,000
1853-'54-----	495,200,000	15,726,000	1875-'76-----	165,450,000	11,578,000
1854-'55-----	385,700,000	18,025,000	1876-'77-----	194,960,000	15,646,000
1855-'56-----	254,600,000	16,200,000	1877-'78-----	149,469,200	11,957,536
1856-'57-----	81,400,000	8,137,000	1878-'79-----	245,319,150	18,398,936

NOTE.—Although the above table, from 1850 to 1878, of production in pounds, varies somewhat from the table of Messrs. Champonier and Boucherou, in the “Statistical Abstract of the United States,” it is considered on the whole the most reliable data extant on the subject; and it is believed that the differences apparent between the various authorities consist of different estimates of the number of pounds per hogshead; Messrs. Champonier and Boucherou estimate an average of 1,150 pounds per hogshead; other authorities estimate 1,200 pounds per hogshead; while the fact is, that hogsheads vary in weight from about 1,160 to 1,200 pounds; some even estimate 1,300 pounds to the hogshead; hence the above is approximately accurate; the value is computed by using the average prices current in each year.—H. A. BROWN.

As to the importations of sugar each year, its annual value, and the annual revenue therefrom?

In reply I present a tabular exhibit of imported sugars entered into consumption each year, for the fiscal years 1867 to 1879, inclusive, the annual value thereof, the duty received therefrom, and the rate per pound, in each fiscal year.

Foreign sugar entered into consumption.

Years.	Dutiable sugars.	Valued.	Duty paid.	Rate lb.
	<i>Pounds.</i>			<i>Cents.</i>
1867.....	936,786,240	\$38,300,320	\$28,500,220	3.04
1868.....	997,298,331	43,307,769	30,359,400	3.04
1869.....	1,007,625,757	47,826,296	30,645,235	3.04
1870.....	1,183,089,146	59,021,588	35,986,347	3.04
1871.....	1,166,394,287	58,382,938	29,690,552	2.54
1872.....	1,346,942,550	73,318,299	27,876,769	2.07
1873.....	1,378,498,832	74,993,073	28,226,309	2.05
1874.....	1,511,456,915	76,080,510	30,492,526	2.02
1875.....	1,575,893,948	69,292,009	33,380,643	2.12
1876.....	1,561,880,545	63,860,713	37,625,064	2.41
1877.....	1,455,387,854	71,849,089	34,337,350	2.36
1878.....	1,552,875,112	78,986,070	36,387,464	2.34
1879.....	1,598,461,986	65,918,931	37,294,197	2.33

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Years.	Free Sugars.	Valued.	Duty paid.	Rate lb.
	<i>Pounds.</i>			
1877.....	30,685,142	\$2,112,270	Free.....
1878.....	30,368,328	2,274,430	Free.....
1879.....	41,693,069	2,811,192	Free.....

As to the qualities of sugars now imported from the Hawaiian Islands? In reply, I present the following tabular exhibit of the different grades or qualities of sugars imported from the Hawaiian Islands, also the quantities and value thereof, for the fiscal years ending June 30, 1877, 1878, and 1879, under the reciprocity treaty admitting Hawaiian sugars duty free:

Quality.	Quantity.	Value.
1877.		
	<i>Pounds.</i>	
Sugars not above No. 7 Dutch standard.....	None.	None.
Above 7, not above No. 10.....	3,980,804	\$230,155
Above 10, not above No. 13.....	11,291,315	714,490
Above 13, not above No. 16.....	10,183,556	737,525
Above 16, not above No. 20.....	5,186,406	426,302
Above No. 20 Dutch standard, in all.....	43,061	3,798
1878.		
Sugars not above No. 7 Dutch standard.....	None.	None.
Above 7, not above No. 10.....	2,437,920	161,922
Above 10, not above No. 13.....	10,805,283	757,734
Above 13, not above No. 16.....	12,227,780	963,549
Above 16, not above No. 20.....	4,897,345	391,224
1879.		
Sugars not above No. 7 Dutch standard.....	None.	None.
Above 7, not above No. 10.....	8,174,146	501,850
Above 10, not above No. 13.....	16,615,686	1,099,164
Above 13, not above No. 16.....	15,670,564	1,118,117
Above 16, not above No. 20.....	1,232,673	92,061

As to the different grades of sugar imported from Hawaiian Islands before the treaty?

In reply I present the following tabular exhibit, which substantially indicates the quality and quantity of Hawaiian sugars prior to the treaty. The actual grades of sugar imported from Hawaii in 1874, 1875, 1876 are not officially stated except on invoice entries, but are readily approximated by comparing market values with quantities imported in those years.

Sugars imported from Hawaii, fiscal years 1868, and 1874, 1875, 1876.

<i>Quality.</i> 1868.	<i>Quantity. Value.</i>	
	<i>Pounds.</i>	
Sugars not above No. 12 Dutch standard.....	12,622,159	\$579,756
Above 12, not above No. 15.....	5,591,842	375,247
Above 15, not above No. 20.....	27,061	1,895
Above No. 20, in all.....	80	11
Average grade, 7 to 10.....	18,241,142	956,909
1874—Nos. 7 to 10 D. S., average.....	13,575,674	740,786
1875—Nos. 7 to 10 D. S., average.....	17,888,000	938,676
1876—Nos. 7 to 10 D. S., average.....	20,978,374	1,051,987

As to American capitalists engaged in the sugar business in the Hawaiian Islands?

Answer. There are well-known American capitalists and extensive refiners of sugar in California who, in co-operation with Hawaiian producers of sugar, control the sugar trade of Hawaii, and through this control of free sugars also regulate prices of refined sugar to consumers on the Pacific coast; keeping them as high as possible without admitting refined sugars from the Atlantic States in quantities sufficient for successful competition against sugars refined in California.

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